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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/873,803      | 06/04/2001  | Patrick H. Dussud    | MS174292.1          | 5420             |

27195 7590 03/18/2004

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CLEVELAND, OH 44114

EXAMINER

WU, YICUN

ART UNIT PAPER NUMBER

2175

DATE MAILED: 03/18/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/873,803

Applicant(s)

DUSSUD ET AL.

Examiner

Yicun Wu

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

DIANE D. MUZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**III. DETAILED ACTION**

1. Claims 1-34 are presented for examination.

**Election/Restriction**

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-14, 16-21, 23-27, 29 and 31 drawn to a system for executing managed and unmanaged code, classified in class 707, subclass 206.

II. Claims 15, drawn to a system for executing code in real-time in class 707, subclass 101.

III. Claims 22 and 33, drawn to a method of garbage collection during execution of code on a machine, classified in class 707, subclass 2.

IV. Claims 28-29, 32 and 34, drawn to computer-readable medium having computer-executable instructions for performing the steps, classified in class 707, subclass 104.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The

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subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a the execution engine notifying the garbage collection service without requiring the/a compiler operable to compile source code into an intermediate definition language and then into executable code for executing one or more programs of invention II. See MPEP § 806.05 (d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as a the execution engine notifying the garbage collection service without requiring declaring at least one reference as pinned based on an unsafe condition of invention III. See MPEP § 806.05(d).

Inventions I and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as the execution engine notifying the garbage collection service without requiring invoking a garbage collection algorithm of invention IV. See MPEP § 806.05 (d).

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Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as the/a compiler operable to compile source code into an intermediate definition language and then into executable code for executing one or more programs without requiring declaring at least one reference as pinned based on an unsafe condition of invention III. See MPEP § 806.05 (d).

Inventions II and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as the/a compiler operable to compile source code into an intermediate definition language and then into executable code for executing one or more programs without requiring invoking a garbage collection algorithm of invention IV. See MPEP § 806.05 (d).

Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as declaring at least one reference as

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pinned based on an unsafe condition without requiring invoking a garbage collection algorithm of invention IV. See MPEP § 806.05 (d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Examiner attempted to contact Attorney Himanshu Amin March 16, 2004 to request an oral election to the above restriction requirements, but did not result in an election being made because Attorney Amin was unavailable.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 703-305-4889. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yicun Wu  
Patent Examiner  
Technology Center 2100

~~DIANE D. INZRAHI~~  
~~PRIMARY PATENT EXAMINER~~  
~~TECHNOLOGY CENTER 2100~~

March 16, 2004